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**California Air Resources Board****PM2.5 Emission Inventory Development Projects**

**Note:** This DRAFT table is provided for general information only and is not binding or completely definitive. Contact ARB staff for additional information.

**Planning & Technical Support Division**

<b><i>Ongoing Projects</i></b>
Simulation and Analysis of Factors Leading to High PM Emission Fluxes Using an Environmental Wind Tunnel (#97-718)
Estimate Unpaved Road Travel VMT Using GIS Land-Use Attributes (#96-722)
Estimate and Model Ammonia Emissions from Fertilizer Use and Background Sources (#98-716)
Develop a Method and Collect Activity Data for Charbroiling and Other Commercial Cooking Operations (#98-721)
Creating a Statewide Spatially and Temporally Allocated Forest Burning Emission Inventory (#98-726)
Directly Measured Particulate Matter Produced by Vehicle Travel over Paved Roads (#98-723)

<b><i>Possible Future Projects - For discussion at workshop</i></b>
Estimate Unpaved Road Travel VMT Using GIS Land-Use Attributes - Phase II
Evaluation of PM Entrainment, Deposition, and Transport of Geologic Dust from Unpaved Roads and Agricultural Lands
Residential Wood Combustion Emissions Estimation
Creating a Statewide Spatially and Temporally Allocated Agricultural Burning Emission Inventory
Chemical & Size Speciation Projects
Development of Models for Spatial Allocation of PM2.5 using GIS
Livestock Activity Data and Factors That Influence Livestock Ammonia Emissions

<b><i>ARB Staff Ongoing Projects</i></b>
GIS Based Emission Inventory and Web-Based Access
Spatial and Temporal Allocation of PM Emissions (SMOKE)
Statewide Ammonia Emissions Inventory Development
Development of GIS Based Biogenic Emissions Estimates
Development & Acquisition of Statewide Vegetation Maps

## Other Selected ARB Particulate Matter Inventory Related Studies

<b>California Regional PM Air Quality Studies</b>
Complete Picture Speciation Profiles - Develop profiles of gaseous, semi-volatile, and particulate species for the major carbon sources
Geological Profiles - Develop profiles using innovative tracers to distinguish between the major sources of geological material
Activity Data Collection - Develop regional activity and spatial/temporal allocation data for the 1999-2000 time period.
Ammonia Emissions - Develop improved estimates for non-agricultural soils and fertilizer application, as well as urban sources of ammonia
Mobile Source Activity Data - Collect traffic count data to develop hourly motor vehicle activity profiles
Transportation Network Integration - Create a consistent, gridded MV inventory that integrates data from all regions in study domain
Almond, walnut, fig, wheat, and cotton harvest PM emissions testing
Agricultural land preparation emissions testing for PM
Dairy and feedlot ammonia and PM testing
Application of remote sensing to measure emissions
Evaluation of the PM emissions potential of various soil types

## Mobile Source Control Division and Research Division

<b>Motor Vehicle &amp; Mobile Source Projects</b>
Testing for Exhaust Emissions of Diesel Powered Off-Road Engines
Characterization of Particulate Matter Emissions from Gasoline-Fueled Vehicles
Impact of Reformulated Fuels on Particle and Gas-Phase Emissions from Motor Vehicles
Physical and Chemical Characteristics of Ultrafine and Nanoparticle PM from Gasoline and Diesel On-Road MV
Analysis of Tire and Brake Wear Particulate Matter from On-Road Motor Vehicles
Development of Software for Spatially and Temporally Resolving Motor Vehicle Activity Data
A Large Scale Global Positioning System (GPS) Instrumented Vehicle Study for Collection of Statewide Automobile Activity Data
Analysis of Weekend Episodic Activity
Emissions Testing of Low-Emitting Two-Stroke Utility Engine for Criteria Pollutants, PM10, and PM2.5
Measurement and Modeling of PM10 and PM2.5 Emissions from Paved Roads in California
Duty-Cycle and Emissions Testing for Personal Watercraft and Motorcycles
Duty-Cycle and Emissions Testing for Utility and Light Industrial Equipment
Heavy Duty Vehicle Chassis Dynamometer Emissions Testing at LACMTA Laboratory
Ammonia Emissions from Motor Vehicles

## Research Division

<b>Other PM Related Research</b>
Remote Sensing Atmospheric Ammonia Using NOAA's mini-MOPA CO2 Lidar in Central California
Flux Measurements of Ammonia to Estimate Emission Factors and Operation of NOy Network
Characterization and Control of Organic Compounds Emitted from Air Pollution Sources
Aerosol Time-of-Flight Mass Spectrometry (ATOFMS)
Revegetation Techniques for Control of Fugitive Dust in the Western Mojave Desert
Biological Markers for Characterization of Potential Sources of Soil-Derived and Geological Fugitive Dust
Improvement of Speciation Profiles for Aerosol Coatings
Determination of Elemental Carbon, Organics, and Source Contributions to Particles During SC Childrens Health Study
Near-Source Exposure to Crystalline Silica and Fine Mineral Fibers in California

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